(2) *Methane analyzer*. The analytical system for methane consists of a gas chromatograph (GC) combined with a flame ionization detector (FID).

(3) *Alcohols and Aldehydes*. The sampling and analysis procedures for alcohols and aldehydes, where applicable, shall be approved by the Administrator prior to the start of testing. Procedures are allowed if they are consistent with the general requirements of 40 CFR part 1065, subpart I, for sampling and analysis of alcohols and aldehydes, and with good engineering practice.

(4) Other methods of measuring organics that are shown to yield equivalent results can be used upon approval of the Administrator prior to the start of testing.

(d) *Oxides of nitrogen analyzer specifications*. (1) Oxides of nitrogen are to be measured with a chemiluminescence (CL) analyzer.

(i) The NO_X sample must be heated per §92.114 up to the NO_2 to NO converter.

(ii) For high vacuum CL analyzers with heated capillary modules, supplying a heated sample to the capillary module is sufficient.

(iii) The NO_2 to NO converter efficiency shall be at least 90 percent.

(iv) The CO_2 quench interference must be less than 3.0 percent as measured in §92.121(a).

[63 FR 18998, Apr. 16, 1998, as amended at 70 FR 40454, July 13, 2005]

§92.110 Weighing chamber and microbalance.

(a) *Ambient conditions*—(1) *Temperature*. The temperature of the chamber (or room) in which the particulate filters are conditioned and weighed shall be maintained at a measured temperature between 19 °C and 25 °C during all filter conditioning and weighing.

(2) *Humidity*. The relative humidity of the chamber (or room) in which the particulate filters are conditioned and weighed shall be 45±8 percent during all filter conditioning and weighing. The dew point shall be 6.4 to 12.4 °C.

(b) *Weighing balance specifications*. The microbalance used to determine the weights of all filters shall have a precision (standard deviation) of no more than 20 micrograms and readability down to 10 micrograms or lower.

(c) *Reference filters*. The chamber (or room) environment shall be free of any ambient contaminants (such as dust) that would settle on the particulate filters during their stabilization. It is required that at least two unused reference filters remain in the weighing room at all times in covered (to reduce dust contamination) but unsealed (to permit humidity exchange) petri dishes.

(1) These reference filters shall be placed in the same general area as the sample filters. These reference filters shall be weighed within 4 hours of, but preferably at the same time as, the sample filter weighings.

(2) If the average weight of the reference filters changes between sample filter weighings by ±5.0 percent (±7.5 if the filters are weighed in pairs) or more of the target nominal filter loading (the recommended nominal loading is 0.5 milligrams per 1075 square millimeters of stain area), then all sample filters in the process of stabilization shall be discarded and the emissions tests repeated.

(3) If the average weight of the reference filters decreases between sample filter weighings by more than 1.0 percent but less than 5.0 percent of the nominal filter loading then the manufacturer or remanufacturer has the option of either repeating the emissions test or adding the average amount of weight loss to the net weight of the sample.

(4) If the average weight of the reference filters increases between sample filter weighing by more than 1.0 percent but less than 5.0 percent of the nominal filter loading, then the manufacturer or remanufacturer has the option of either repeating the emissions test or accepting the measured sample filter weight values.

(5) If the average weight of the reference filters changes between sample filter weighings by not more than ±1.0 percent, then the measured sample filter weights shall be used.

(6) The reference filters shall be changed at least once a month, but never between clean and used weighings of a given sample filter. More than one set of reference filters

may be used. The reference filters shall be the same size and material as the sample filters.

§ 92.111 Smoke measurement system.

(a) *Schematic drawing.* Figure B111–1 of this section is a schematic drawing of the optical system of the light extinction meter, as follows: